

## Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

Project No.	<b>BR-0124</b>
WBS Element	<b>48833.1.1</b>
Federal Project No.	<b>N/A</b>

### **A. Project Description:**

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 960166 on SR 1745 (Shumate Mountain Road) over the West Prong of Roaring River in Wilkes County (Refer to Figure 1).

Built in 1977, Bridge No. 960166 has two 8 to 9-foot travel lanes, is approximately 136 feet in length, with a steel deck on I-beam construction. Bridge No. 960166 has a posted single vehicle weight limit of 26 tons and a truck tractor semitrailer weight limit of 31 tons. The existing right of way along SR 1745 (Shumate Mountain Road) is 60 feet. The project is scheduled for Right of Way (ROW) in August 2019 and Let in May 2020. Minor ROW acquisition is anticipated.

The project proposes replacing the existing bridge with an approximately 30-foot wide structure out to out with two 10-foot travel lanes and three-foot, eleven inch shoulders. The proposed three-span bridge would be approximately 143 feet in length with a proposed right of way width of up to 80 feet. Improvements to SR 1746 (Middle Fork Road) include raising the profile to tie into SR 1745 (Shumate Mountain Road). In addition, there will be approximately 172 feet of improvements along SR 1746 (Middle Fork Road), to allow for guardrail placement at the intersection. The total length of the project is approximately 635 feet.

The proposed bridge would not be posted with weight restrictions and will be designed to meet the legal load rating. The bridge replacement would be constructed in place using an off-site detour. SR 1745 (Shumate Mountain Road) is classified as a Local Route with a 55-mile per hour posted speed limit and 45-mile per hour design speed. The speed limit will be lowered to 45-miles per hour upon completion of the new bridge.

### **B. Description of Need and Purpose:**

The replacement of Bridge No. 960166 is part of the *Growing Rural Economy and Agriculture through Transportation and Technology Enhancement or Replacement in North Carolina (GREATTER-NC)* Project under the United States Department of Transportation's 2018 Better Utilizing Investments to Leverage Development (BUILD) Grant program. The purpose of the grant and this bridge replacement project is to provide transportation infrastructure to support economic development and improve physical and digital connectivity in rural communities in North Carolina. The posted weight restriction on Bridge No. 960166 prohibits large or heavy vehicles, typically used in transporting agricultural and manufactured products, from using the bridge. Vehicles above the posted weight must detour 3.9 miles to avoid the bridge.

Replacing the existing bridge will eliminate posted weight limits by providing a safe crossing for all legal loads and will make accommodations for broadband installation in order to support economic competitiveness.

NCDOT Structures Management Unit records indicate Bridge No. 960166 has a sufficiency rating of 67.52 out of a possible 100 and has a posted weight limit. The proposed project will be designed to meet the legal load rating.

**C. Categorical Exclusion Action Classification:**

TYPE I A

**D. Proposed Improvements:**

28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e)(1-6).

**E. Special Project Information:**

**Anticipated Permit or Consultation Requirements:** A Nationwide Permit (NWP) No. 3- Maintenance, NWP No.14- Linear Transportation Projects, and/or NWP No. 23- Approved Categorical Exclusion will likely be applicable. The US Army Corps of Engineers (USACE) holds the final discretion as to what permit will be required to authorize project construction. A Section 404 permit is required and a Section 401 Water Quality Certification (WQC) from the North Carolina Division of Water Resources (NCDWR) is needed.

**Floodplain:** West Prong of Roaring River, which crosses under Bridge No. 960166, is in a FEMA Zone AE Floodplain. The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) regarding applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR). See Section H for project commitments.

**Historic and Archaeological Resources:** In compliance with NCDOT's Programmatic Agreement with the State Historic Preservation office, NCDOT Human Environment Section completed a *No Survey Required* form for Historic Architecture and Landscapes on 10/18/2018 and for Archaeological Resources on 7/24/2019.

**Agricultural Land Use:** Agricultural land use, primarily livestock, was identified surrounding the project area using aerial imagery and confirmed during the April 2019 site visit. Farming operations in the vicinity of the bridge may be temporarily affected during construction by losing direct access and by using the approximately 6.7 mile off-site detour. Minor right of way acquisition will also be required for the project. Coordination with the agricultural landowners temporarily impacted by the off-site detour and by right of way acquisition should occur throughout the project. See Section I, Project Commitments.

**Environmental Commitments:** Project commitments are located at the end of the checklist in Section I.

**Estimated Costs (FY 2020):** The estimated costs are as follows:

Utility**	\$79,800
R/W*	\$4,913
Const.**	\$1,995,000
Total	\$2,079,713

Sources: \*NCDOT Right of Way Appraisal Unit, July 2019

\*\* Connect GREATER Rural Bridge Program- Bridges Budget Sources and Uses, Accessed June 11, 2019.  
<https://connect.ncdot.gov/resources/GREATER-Rural-Bridge-Program/Documents/05%20NCDOT%20Bridges%20Budget%20Sources%20and%20Uses.xlsx>

**Estimated Traffic:**

Average Daily Traffic (ADT) 2016*	470 vehicles per day (vpd)
Average Daily Traffic (ADT) 2040	940 vpd

Source: \* NCDOT Traffic Review Sheet, 2018

**Crashes:** NCDOT’s Safety Planning Group completed a planning level query of bridge crash counts from 1/1/2013 to 12/31/2017. Over the five-year study period, zero crashes were reported within a 500 feet distance of Bridge No. 960166 on SR 1745 (Shumate Mountain Road).

**Pedestrian and Bicycle Accommodations:** There are no existing bike or pedestrian facilities on Bridge No. 960166 along SR 1745 (Shumate Mountain Road). However, SR 1745 is identified as part of the Cabin Creek Bicycle Loop, a feature in Wilkes County bicycle network. The proposed three-foot, six-inch high railing is considered bike safe. A Start of Study letter was sent to NCDOT Bicycle & Pedestrian Division; no comments were received.

**Design Exceptions:** A design exception is not required for this project.

**Alternative Analysis:**

**No Build –** The no build alternative would not meet the requirements of the GREATER-NC Project, and thus is not a viable option.

**Rehabilitation –** Rehabilitation would not meet the requirements of the GREATER-NC Project, and thus is not a viable option.

**Onsite Detour –** An offsite detour was determined acceptable.

**New Alignment –** A new alignment option for SR 1745 (Shumate Mountain Road), is not preferred as the existing alignment has been deemed acceptable.

**Replace Bridge in Place with Offsite Detour (Preferred Alternative) –** The detour route is approximately 3.9 miles long and follows SR 1745 (Shumate Mountain Road), SR 1730 (Dehart Community Center Road), and SR 1002 (Traphill Road) and will be required for the duration of construction.

**Agency Comments:** Input forms were sent to the Wilkes County EMS Director, Wilkes County Planning Director, and the Wilkes County Schools Director of Transportation in February and April of 2019.

The Schools Transportation Director indicated that three school busses make six daily trips across the bridge (approximately 7:00 AM and 3:00 PM) and there would be a high impact to the Wilkes School System if the bridge was closed for up to a year, as the project study area is used as a bus turnaround for stops on Adams Road and SR 1746 (Middle Fork Road). A low level of impact was noted from the Wilkes County Planning Director if the bridge was closed for up to a year. No response was received from Wilkes County EMS.

*Response: An approximately 3.9-mile long offsite detour is required for the duration of construction. The detour will utilize SR 1745 (Shumate Mountain Road), SR 1730 (Dehart Community Center Road), and SR 1002 (Traphill Road). Continued coordination with County EMS and Schools will take place prior to construction; see Section I, Project Commitments.*

Agency Start of Study notifications were sent to the **USACE, Federal Highway Administration (FHWA), NC Wildlife Resources Commission (NC WRC), U.S. Fish and Wildlife Service (USFWS), NC Department of Environmental Quality – Division of Water Resources (NC DEQ- DWR), and NC Division of Parks and Recreation (NC DPR)** in May 2019, and to the **Eastern Band of Cherokee Indians, Cherokee Nation of Oklahoma, and United Keetoowah Band of Cherokee Indians** in July of 2019. Start of Study notification were also sent to NCDOT Division 11 and NCDOT Preconstruction contacts in May 2019.

General comments provided by **USFWS** regarding the project included recommendations for erosion and sediment control, Northern long-eared bat (NLEB), migratory birds, and replacing structures that cross rivers and streams. Project-specific comments regarding the potential for the Brook Floater (*Alasmidonta varicosa*) to occur in the study area were provided.

*Response: The NLEB has been assessed by the NCDOT Biological Surveys Group, and the nearest NLEB hibernacula record is 42 miles west of the project and no known NLEB roost trees occur within 150 feet of the project area. The requested preliminary plans were provided to USFWS on 7/24/19. NCDOT Environmental Analysis Unit (NCDOT EAU) confirmed that no action regarding the Brook Floater is required at this time.*

**NC DWR** provided general project comments regarding 401 Water Quality Certification, erosion and sediment control BMPs, and mitigation for impacts to waters of the U.S. are also included in the response.

**USACE** and **NC DPR** had no specific comments regarding the proposed actions. No response was received by **FHWA, NC WRC, Eastern Band of Cherokee Indians, Cherokee Nation of Oklahoma, and United Keetoowah Band of Cherokee Indians.**

**Public Involvement:** A landowner notification letter was sent on 2/7/2019 to property owners adjacent to the bridge to inform them of representatives being present on their property for surveys. No comments have been received to date.

Prior to ROW, newsletters will be sent out by STV on behalf of NCDOT to the properties affected by the project to inform them of the project and the offsite detour, as noted in Section I, Project Commitments.

**F. Project Impact Criteria Checklists:**

<u>Type I &amp; II - Ground Disturbing Actions</u>			
<u>FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA</u>			
If any of questions 1-7 are marked "yes" then the CE will require FHWA approval.		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.			
<u>Other Considerations</u>		Yes	No
8	Does the project result in a finding of "may affect not likely to adversely affect" for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Other Considerations</u>		Yes	No
15	Does the project involve hazardous materials and/or landfills?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)? <b>Not Applicable</b>	<input type="checkbox"/>	<input type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT's Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**G. Additional Documentation as Required from Section F**

**Response to Question 1:** NCDOT has determined that the proposed action will not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

**Response to Question 15:** NCDOT Geotechnical Engineering Unit project scoping comments indicated the presence of an underground storage tank (UST) within the project study area. A Phase I environmental site assessment completed in July 2019 indicates one (1) site of low concern was found within the proposed study area on SR1002 (Traphill Road). Site of concern identified in the Phase I report should be reviewed by the GeoEnvironmental Section once the Final Right of Way plans are complete to determine if Phase II Investigations and Right of Way Recommendations are necessary prior to right of way acquisition. See Section I, Project Commitments.

**Response to Question 16:** This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) to determine the status of the project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

**Response to Question 30:** Prime and Important Farmland Soils, as defined by the Farmland Protection Policy Act (FPPA), are located within the project study area (25-foot buffer from the slope stakes). The Prime and Important Farmland Soil found within the footprint are designated as either "Farmland of Statewide Importance", "Prime Farmland", or "Prime Farmland if drained and either protected from flooding or not frequently flooded during the growing season".

A Natural Resource Conservation Service (NRCS) Farmland Conversion Impact Rating was completed for this project, and a total score of 44 out of 160 points was calculated for the BR-0124 project site. Since the total points calculated in part VI of the NRCS Farmlands Conversion Form AD-1006 for BR-0124 was less than 60, and the total points of the NRCS Farmlands Conversion Form AD-1006 is less than 160, no mitigation for farmland loss is required for the project in accordance with FPPA.

### H. Categorical Exclusion Approval

Project No.	<u>BR-0124</u>
WBS Element	<u>48833.1.1</u>
Federal Project No.	<u>N/A</u>

**Prepared By:**

8/23/2019  
Date

DocuSigned by:  
Elizabeth Scott  
Elizabeth Scott, EI, STV Engineers Inc.

**Prepared For:** North Carolina Department of Transportation

**Reviewed By:**

8/30/2019  
Date

DocuSigned by:  
Phil Harris  
Philip S. Harris, III, PE, Environmental Analysis Unit  
North Carolina Department of Transportation

**Approved**

If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.

**Certified**

If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.

8/23/2019  
Date

DocuSigned by:  
Kevin Fischer  
Kevin Fischer, PE, Structures Management Unit  
North Carolina Department of Transportation

FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

N/A  
Date  
John F. Sullivan, III, PE, Division Administrator  
Federal Highway Administration

## **I. Project Commitments**

**Wilkes County**  
**Bridge No. 960166 on SR 1745 (Shumate Mountain Road) over West Prong of Roaring River**  
**WBS No. 48833.1.1**  
**Project No. BR-0124**

### **NCDOT Hydraulics Unit FEMA Coordination**

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

### **NCDOT GeoEnvironmental Section Phase I Report**

Site of concern identified in the Phase I report should be reviewed by the GeoEnvironmental Section once the Final Right of Way plans are complete to determine if Phase II Investigations and Right of Way Recommendations are necessary prior to right of way acquisition.

### **NCDOT Structures Management Unit Public Involvement Newsletter**

Prior to ROW, newsletters will be sent out on behalf of NCDOT to the properties affected by the project to inform them of the project and the offsite detour.

### **NCDOT Division 11 Agricultural Land Use**

Continued coordination should occur through the right of way phase with the owners of the agricultural lands that are temporarily impacted by the off-site detour.

### **NCDOT Division 11 Schools and Emergency Services**

NCDOT should coordinate with Wilkes County Schools (Eric Barker, 336-667-1126) and Wilkes County Emergency Services (Timothy Pennington, 336-651-7363) at least one month prior to construction.

09/06/19

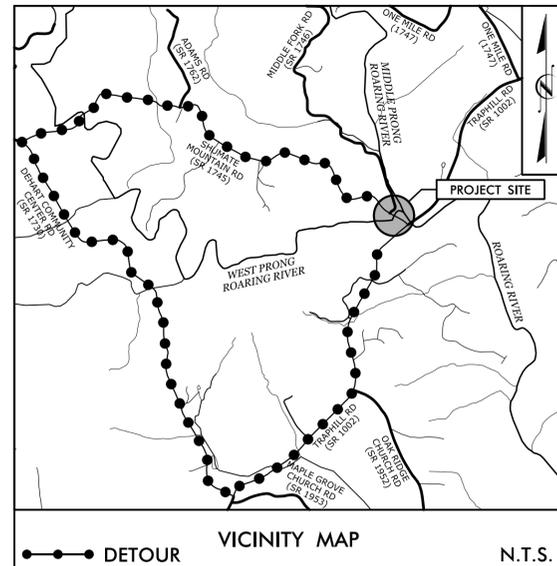
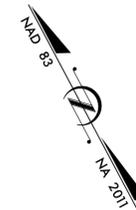
See Sheet 1A For Index of Sheets  
See Sheet 1B For Standard Symbology Sheet

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

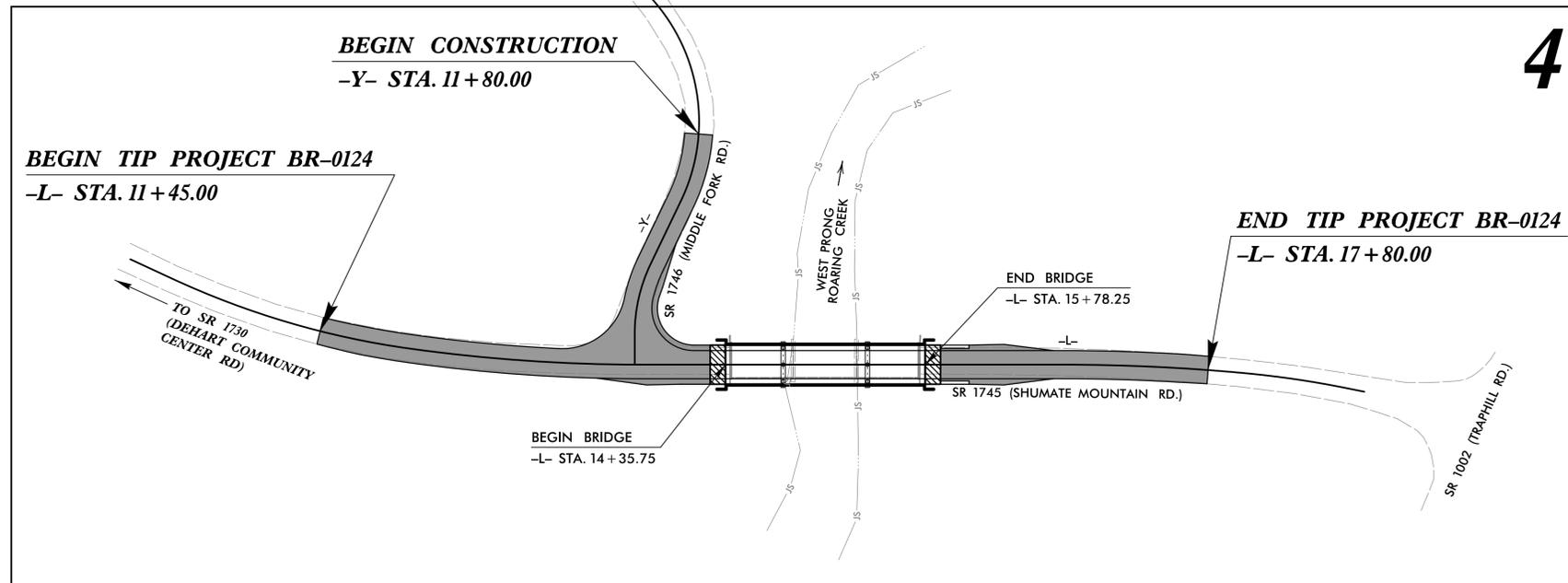
**WILKES COUNTY**

**LOCATION: BRIDGE #166 OVER WEST PRONG ROARING RIVER  
ON SR 1745 (SHUMATE MOUNTAIN RD)**  
**TYPE OF WORK: GRADING, DRAINAGE, PAVING, & STRUCTURE**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0124	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
67124.1.1		P.E.	



PRELIMINARY PLANS



4

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

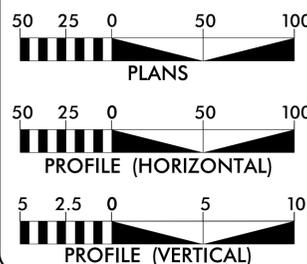
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD     .

INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

CONTRACT: BR-0124

GRAPHIC SCALES



DESIGN DATA

ADT 2016 = 470  
ADT 2040 = N /A  
DHV = N/A  
D = N/A  
T = N /A  
V = 45 MPH

FUNC. CLASSIFICATION:  
LOCAL  
SUB REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT BR-0124 = 0.093 MILES  
LENGTH OF STRUCTURE TIP PROJECT BR-0124 = 0.027 MILES  
TOTAL LENGTH OF TIP PROJECT BR-0124 = 0.120 MILES

NCDOT CONTACT: TIERRE PETERSON, PE  
Structures Management Unit

PLANS PREPARED FOR THE NCDOT BY:



2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
AUGUST 29, 2019

LETTING DATE:  
MAY 22, 2020

NIKKI T. HONEYCUTT, PE  
PROJECT ENGINEER

BHUPESH R. JOSHI, EIT  
PROJECT DESIGNER

HYDRAULICS ENGINEER

SIGNATURE:  
ROADWAY DESIGN ENGINEER

SIGNATURE:

P.E.

P.E.



8/17/19

**-L-**

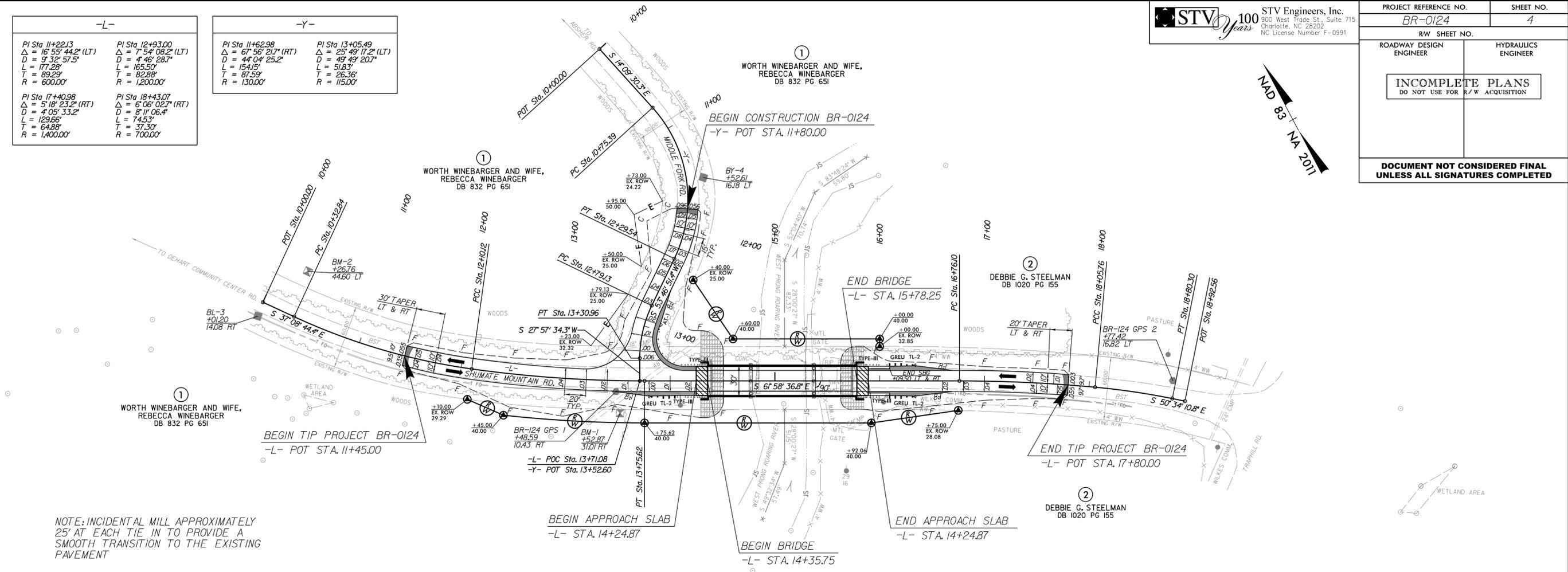
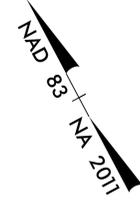
PI Sta 11+221.3 Δ = 16° 55' 44.2" (LT) D = 9' 32' 51.5" L = 177.28' T = 89.29' R = 600.00'	PI Sta 12+93.00 Δ = 7° 54' 08.2" (LT) D = 4' 46' 28.7" L = 165.50' T = 82.88' R = 1,200.00'
PI Sta 17+40.98 Δ = 5° 18' 23.2" (RT) D = 4' 05' 33.2" L = 129.66' T = 64.98' R = 1,400.00'	PI Sta 18+43.07 Δ = 6° 06' 02.7" (RT) D = 8' 11' 06.4" L = 174.53' T = 37.50' R = 700.00'

**-Y-**

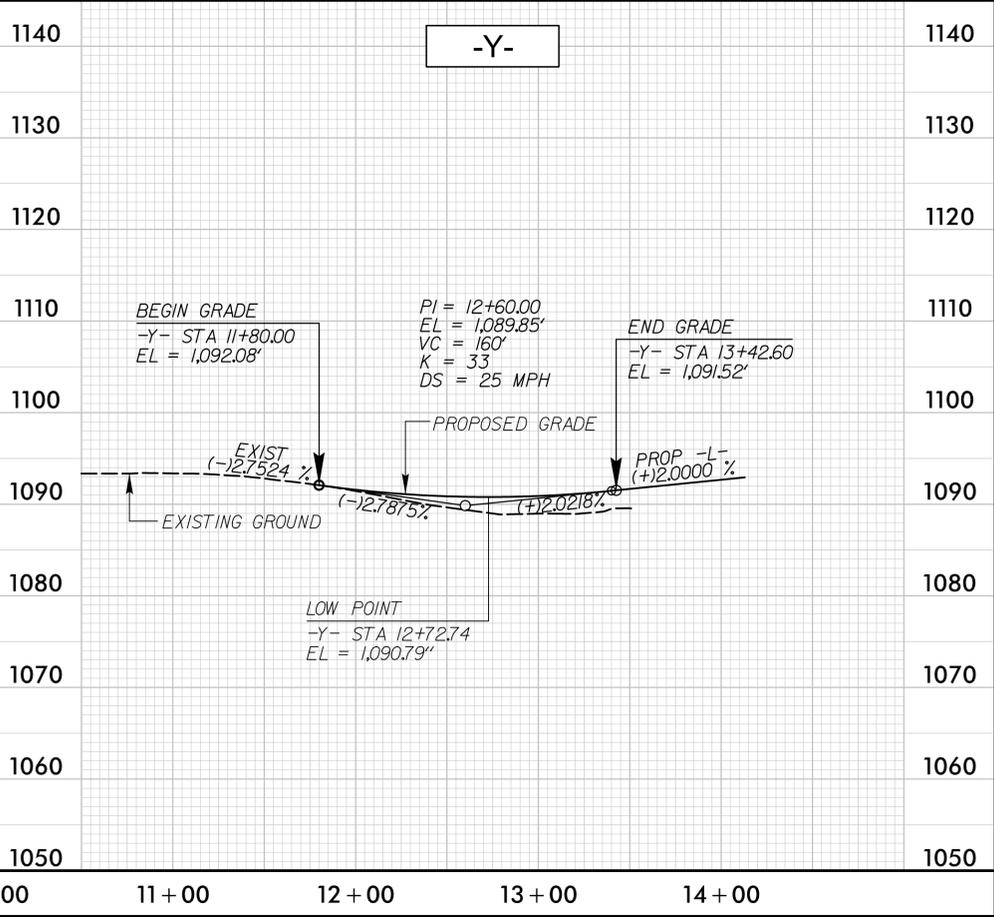
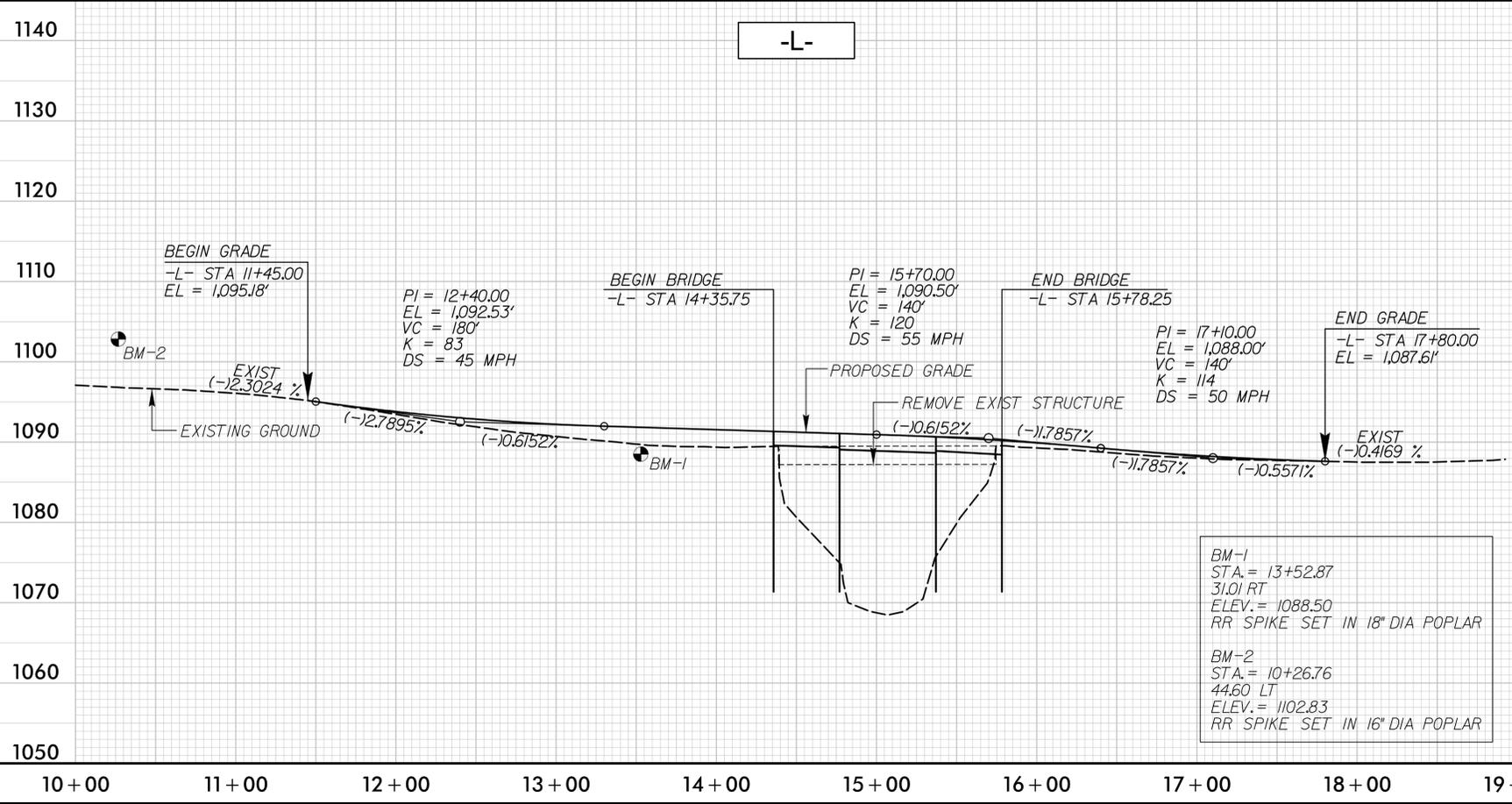
PI Sta 11+62.98 Δ = 6° 56' 21.7" (RT) D = 4' 04' 25.2" L = 154.15' T = 87.59' R = 130.00'	PI Sta 13+05.49 Δ = 25° 49' 17.2" (LT) D = 49' 49' 20.7" L = 51.83' T = 26.36' R = 115.00'
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**STV 100 years** STV Engineers, Inc.  
900 West Trade St., Suite 715  
Charlotte, NC 28202  
NC License Number F-0991

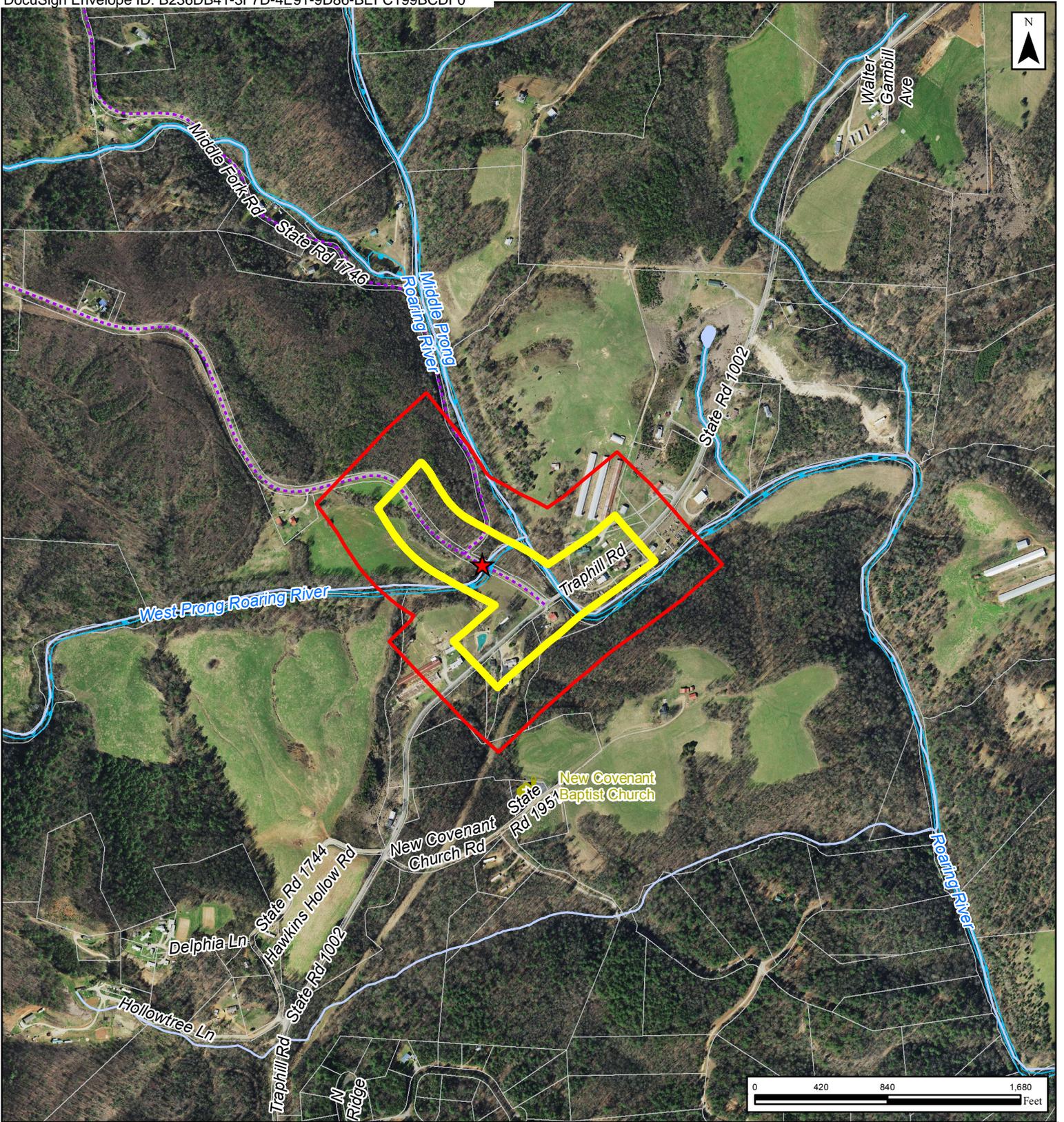
PROJECT REFERENCE NO. <b>BR-0124</b>	SHEET NO. <b>4</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



NOTE: INCIDENTAL MILL APPROXIMATELY 25' AT EACH TIE IN TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT



6/27/2019 10:51:04 AM C:\Users\pcoj\OneDrive\Documents\BR-0124\_rdy\_psh04.dgn



**Legend**

- ★ Br. 960166 over W. Prong of Roaring River
- Project Study
- Direct Community Impact Area (DCIA)
- Wilkes Co. Bike Route
- Stream
- Floodplain
- NWI Wetland
- Parcel
- Church

**Wilkes County, NC**



Sources: Wilkes County GIS Department, NC One Map, NC HPO GIS Portal, & Google Earth

**STIP BR-0124**  
**Bridge No. 960166 Replacement**  
**over West Prong of**  
**Roaring River**  
**Wilkes County**  
**NCDOT Division 11**

July 2019

**Figure 1**



## NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.



### PROJECT INFORMATION

*Project No:* BR-0124                      *County:* Wilkes  
*WBS No:* 67124                              *Document:* Federal Categorical Exclusion  
*Federal Aid No:*                              *Funding:*  State       Federal  
*Federal Permit Required?*  Yes    No                      *Permit Type:* USACE

#### ***Project Description:***

Replace Bridge 166 on SR 1745 (Shumate Mountain Rd.) over the West Prong Roaring River in Wilkes County. The Area of Potential Effects (A.P.E.) is approximately 295 meters (968 ft.) long and 114 meters (375 ft.) wide at its widest point (approximately 4 acres). The A.P.E. includes land along SR 1745 and SR 1746 (Middle Fork Rd.). The project is State-funded and will require Federal permits. Easements will be required.

NOTE: A survey was recommended for this project on 2/15/2019. The original submittal included a large study area (21 acres) that included land along SR 1745 and SR 1002 (Traphill Rd.), as well as Bridge 138 on SR 1002 over the Roaring River. The recommendation was changed to no survey required when a much-reduced A.P.E. (from 21 to 4 acres) was submitted in June 2019. The smaller A.P.E. did not include the two archaeological potential areas that had been identified in the larger study area.

### SUMMARY OF CULTURAL RESOURCES REVIEW

#### ***Brief description of review activities, results of review, and conclusions:***

The review included an examination of a topographic map, the Wilkes County web soil survey, an aerial photograph, and records about previously recorded sites, previous archaeological surveys, and previous environmental reviews at the North Carolina Office of State Archaeology (OSA) in Raleigh. Also, a reconnaissance of the project was conducted on 1/8/2019. Bridge 166 is oriented northwest-southeast but is considered north-south for this review.

The topographic map (Traphill) shows the A.P.E. is located in a wide stream valley. The West Prong Roaring River joins the Middle Prong Roaring River a short distance east of Bridge 166. The landforms in the A.P.E. appear to be floodplain and ridges along the West Prong and the Middle Prong Roaring River. The southwest quadrant of Bridge 166 appears to be a floodplain. The northwest quadrant appears to be a floodplain. The northeast quadrant appears to be a ridge toe. SR 1746 joins SR 1745 in this quadrant. The southeast quadrant is a narrow floodplain between SR 1745 and the Roaring River. (It is called the Roaring River south of the confluence of the West Fork and Middle Fork.)

The Wilkes County soil survey shows two main soil types in the A.P.E. These include Pfafftown fine sandy loam (1-6% slopes), rarely-flooded, and Ronda loamy sand (0-5% slopes), occasionally

flooded. Pfafftown fine sandy loam is a well-drained soil found on stream terraces. Ronda loamy sand is an excessively drained soil found on natural levees on floodplains.

The aerial photograph shows the land use in the A.P.E. is a mix of wooded and cleared land. The southwest quadrant 166 is cleared (pasture?). The northwest quadrant is wooded next to the road and cleared (pasture?) away from the road. The northeast quadrant is wooded. The southeast quadrant is a narrow, wooded strip between SR 1745 and the Roaring River.

A reconnaissance of the original study area was conducted by NCDOT archaeologist Caleb Smith on 1/8/2019. The reconnaissance found that the landforms in the northwest and southwest quadrants (of the larger study area) have potential for archaeological sites. The northeast and southeast quadrants have a low potential for archaeological sites.

The southwest quadrant is a narrow strip of level land that extends along the west side of SR 1745 from the bridge south to SR 1002. It is currently used as horse pasture. It overlooks the floodplain in the southeast quadrant, and appeared to have potential for archaeological sites. The reduced A.P.E. includes only a narrow strip along the west side of SR 1745. The southeast quadrant is a narrow strip of floodplain between SR 1745 and the Roaring River. There is a small parking lot (for a boat ramp?) located along SR 1002. The landform appears to be flood-prone and poorly-drained. The land elevation is well below the road, and there are several flood channels visible. The northeast quadrant is a slope up from the Middle Fork to SR 1746, and then a sloped ridge. This area is wooded. The reduced A.P.E. includes more land in this quadrant than did the large study area. Visual inspection of the land along both sides of SR 1746 did not identify any areas with potential for archaeological sites. The northwest quadrant is a gently-sloped terrace or ridge toe. A large drainage (ditch?) runs along the west side of SR 1745. The land along the west side of the drainage appears to have a moderate to high potential for archaeological sites. However, the reduced A.P.E. includes only a narrow strip along the west side of SR 1745, which is occupied by the drainage ditch. The terrace/ridge toe is not included in the A.P.E.

***Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:***

An archaeological survey (of parts of the large study area) was recommended on 2/15/2019. The reduced A.P.E. provided in June 2019 does not include the two sections of the study area that were considered to have potential for archaeological sites. Therefore, no survey is recommended.

## SUPPORT DOCUMENTATION

See attached:  Map(s)     Previous Survey Info     Photos     Correspondence  
 Photocopy of County Survey Notes    Other:

## FINDING BY NCDOT ARCHAEOLOGIST

### NO ARCHAEOLOGY SURVEY REQUIRED

Caleb Smith

7/24/2019

NCDOT ARCHAEOLOGIST II

Date

18-09-0086



## HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

### PROJECT INFORMATION

<b>Project No:</b>	BR-0124	<b>County:</b>	Wilkes
<b>WBS No.:</b>	67124.1.1	<b>Document Type:</b>	MCC
<b>Fed. Aid No:</b>		<b>Funding:</b>	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
<b>Federal Permit(s):</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Permit Type(s):</b>	USACE
<b><u>Project Description:</u></b> Replace Bridge No. 166 on SR 1745 (Shumate Mountain Rd) over West Prong Roaring River			

### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

**Description of review activities, results, and conclusions:**

Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on October 18, 2018. Based on this review there are no NR, DE, LL, SL or SS in the Area of Potential Effects (APE). There are three structures over 50 years of age. None of these rise to the level of significance or architectural integrity to warrant further evaluation. No Survey is required at this time.

**Why the available information provides a reliable basis for reasonably predicting that there are no unidentified significant historic architectural or landscape resources in the project area:**

Using HPO GIS website and county tax data provides reliable information regarding the structures in the APE. These combined utilities are considered valid for the purposes of determining the likelihood of historic resources being present.

### SUPPORT DOCUMENTATION

Map(s)    Previous Survey Info.    Photos    Correspondence    Design Plans

### FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

*Shelby Reap*  
\_\_\_\_\_  
NCDOT Architectural Historian

*10/18/18*  
\_\_\_\_\_  
Date



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

Date: June 11, 2019

MEMORANDUM TO: File

From: Marissa Lenoce, Transportation Planner, STV Engineers,  
Inc

SUBJECT: **NRCS Farmland Conversion Impact Rating Bridge No.  
960166 on SR 1745 over West Prong of Roaring River  
Wilkes County, NC**

WBS 48833.1.1, Project No. BR-0124

The Farmland Protection Policy Act of 1981 (7 CFR Part 658) (FPPA) requires an assessment of the potential impacts of land acquisition and construction activities in prime, unique, and local or statewide importance as defined by the US Natural Resource Conservation Service (NRCS). This memo is to document the completion and results of the NRCS Farmland Conservation Impact Rating process for Project BR-0124 consistent with FPPA.

### **Project Description**

BR-0124 proposes to replace Bridge No. 960166 on SR 1745 (Shumate Mountain Road) over West Prong of Roaring River in Wilkes County. The project proposes replacing the existing bridge with an approximately 30-foot wide structure with two 10-foot travel lanes. The proposed bridge would be approximately 143 feet in length and the proposed right of way 80 feet. The total length of the project is approximately 635 feet.

### **Applicability**

Project BR-0124 is subject to the provisions of FPPA for the following reasons:

- It is a federally funded project.
- It is not within a municipality, urbanized area, or urban built-up area.
- Prime farmlands of statewide importance are found within the project area.
- The land is not in water storage or used for national defense purposes.

### **NRCS Farmland Figure**

In accordance with guidance provided by NCDOT Community Studies, the farmland figure was created to display the project location and a one-mile buffer over a layer displaying prime farmland, farmland of statewide importance, and Farmland of Local Importance in the vicinity of the project. A project footprint was created to include a 25-foot buffer from the slope stakes. The NRCS farmland figure is attached to this memo.

### **Completion of Part VI of the NRCS Form AD-1006**

Part VI (Site Assessment Criteria) of the NRCS Form AD-1006 was completed for this project. Points allotted for each criterium and reasoning are provided below.

1. Area in Non-urban Use: 13 out of 15 points. Estimated using aerial photography; approximately 80% of the land within the 1-mile buffer is non-urban.
2. Perimeter in Non-urban Use: 10 out of 10 points. Estimated using aerial photography; more than approximately 90% borders on land in non-urban use.
3. Percent of Site Being Farmed: 6 out of 20 points. Estimated using aerial photography; approximately 30% of the site is being farmed.
4. Protection Provided by State and Local Government: 0 out of 20 points. The site is not designated as a Voluntary Agriculture District (VAD) or Enhanced Voluntary Agriculture District (EVAD).
5. Distance from Urban Built-up Area: 5 out of 15 points. Determined using aerial photography; site is within 1.0 mile of North Wilkes High School and New Covenant Baptist Church.
6. Distance to Urban Support Services: 0 out of 15 points. Services exist within ½ mile of the project site.
7. Size of Present Farm Unit Compared to Average: 0 out of 10 points. The farm units are more than 50% below the average size farm unit in Wilkes County (114 acres).
8. Creation of Non-farmable Farmland: 0 out of 10 points. This project will have no implications on remaining farmable land.
9. Availability of Farm Support Services: 0 out of 5 points. No farm support services were identified within the site.
10. On-Farm Investments: 10 out of 20 points. Some on-farm investments including barns, storage buildings, and waterways were identified using aerial imagery.
11. Effects of Conversion on Farm Support Services: 0 out of 10 points. No significant reduction in demand for farm support services would occur as a result from the project.
12. Compatibility with Existing Agricultural Use: 0 out of 10 points. The project is compatible with existing agricultural use.

### **Result of Site Assessment Criteria**

The sum of the points assigned in part VI of the NRCS form AD-1006 for BR-0124 is 44.

### **Summary**

Because the total of the points assigned in part VI of the NRCS form AD-1006 for BR-0124 is less than 60 and therefore the total points of the NRCS Farmlands Conversion Form AD-1006 is less than 160, no mitigation for farmland loss is required for the project in accordance with FPPA.

## Sources

US Census. Census of Agriculture. 2012. County Data. North Carolina. Wilkes County. Accessed 6/14/2019.

[https://www.nass.usda.gov/Publications/AgCensus/2012/Full\\_Report/Volume\\_1, Chapter\\_2\\_County\\_Level/North\\_Carolina/st37\\_2\\_001\\_001.pdf](https://www.nass.usda.gov/Publications/AgCensus/2012/Full_Report/Volume_1,_Chapter_2_County_Level/North_Carolina/st37_2_001_001.pdf)[https://www.nass.usda.gov/Publications/AgCensus/2012/Online\\_Resources/County\\_Profiles/North\\_Carolina/cp37097.pdf](https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/County_Profiles/North_Carolina/cp37097.pdf)

Wilkes County. GIS Application. Wilkes County, NC. Accessed 6/14/2019.

<https://gis.wilkescounty.net/main/#>

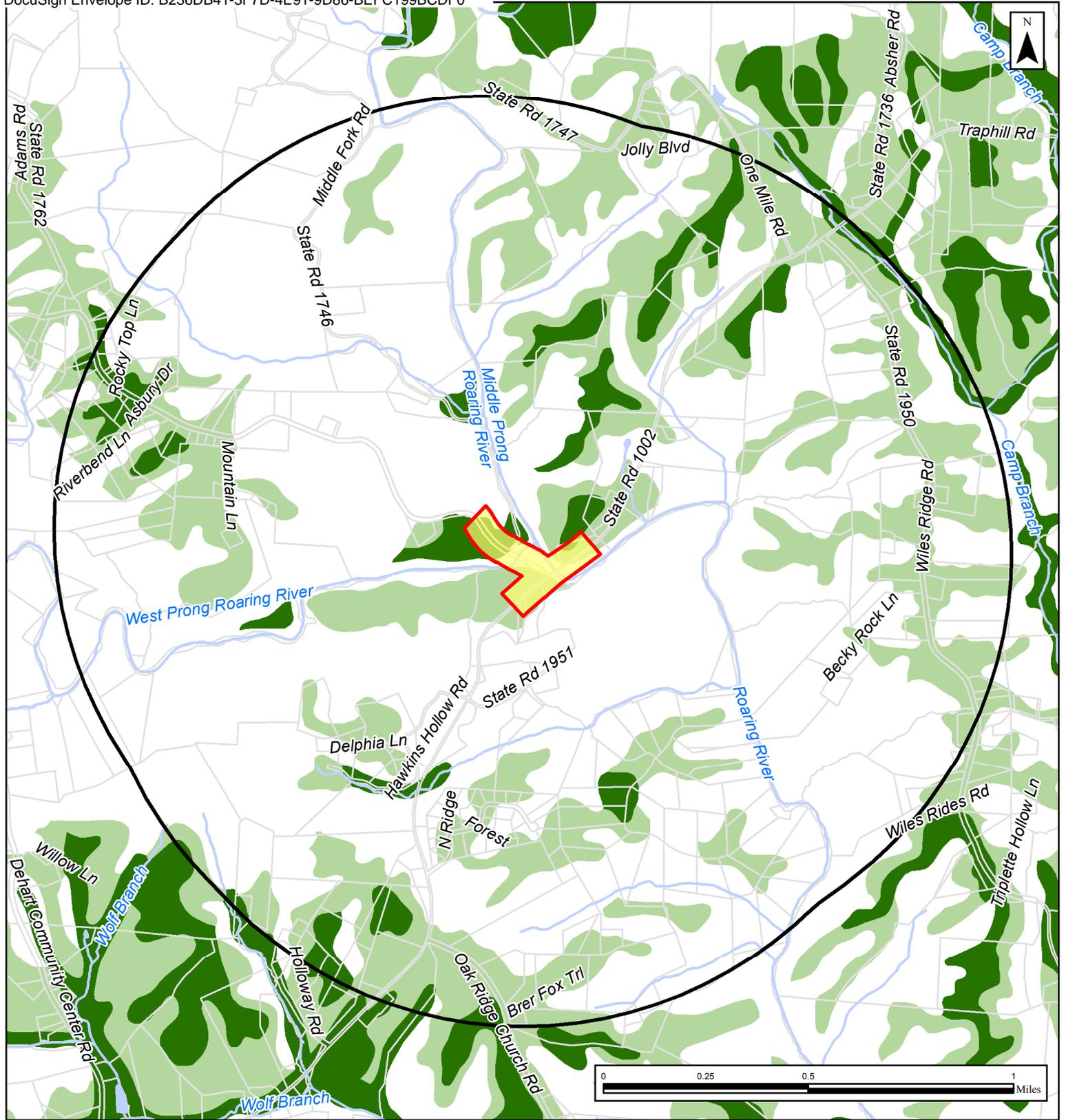
Legal Information Institute. Section 658.5- Criteria. Accessed 6/14/2019.

<https://www.law.cornell.edu/cfr/text/7/658.5>

## Attachments

NRCS Farmland figure

Cc: Harrison Marshall and Herman Huang, NCDOT Community Studies



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
STV 100 Years

**Legend**

- Project Study Area
- Project Footprint
- 1-mile Buffer
- Stream
- Parcel
- Prime Farmland
- Farmland of Statewide Importance

Wilkes County, NC

Wilkesboro

Sources: Wilkes County GIS Department, NC One Map & Google Earth

STIP BR-0124  
Bridge No. 960166 Replacement  
over West Prong of  
Roaring River  
Wilkes County  
NCDOT Division 11

July 2019

NCRS Farmland Figure